

**TOWN OF LOOMIS**

3665 Taylor Rd
P.O. Box 1330
Loomis, CA 95650

ENERGY FORM FOR RESIDENTIAL -ROOF ALTERATIONS**CF-1R-ALT Prescriptive Compliance****Site Address:****Enforcement Agency:** City of Roseville**Climate Zone:** 11**Building Type:** ☐ Single Family ☐ Multi-Family**Date:****ROOFING PRODUCTS (COOL ROOFS) S 151(f)12**

When the area of the exterior roof surface to be replaced exceeds more than 50% of the existing roof area, or more than 1,000 square feet, whichever is less, the new roofing area must meet the roofing product "Cool Roof" requirements of S152(b)1Hi, 152(b)1Hii, or 1529b)1Hiii.

Check applicable alternative or exception below if the roof alteration from the roofing product "Cool Roof" requirements. Note: If any one of the alternatives or exception below is checked, the Aged Solar Reflectance and Thermal Emittance requirements for roofing products in S118(f) are not applicable. Do not fill table below.

☐ Cool Roofs Not Required in Climate Zones 1-12, 14 and 16 with a Low Sloped. Less or 2:12 pitch.

Alternatives to S152(b)1Hi and S152(b)1Hii, Steep-Sloped roof (pitch > 2:12)

- ☐ Insulation with a thermal resistance of at least 0.85 hr ft² ·F/Btu or at least a ¾ inch air-space is added to the roof deck over an attic; or
- ☐ Existing ducts in the attic are insulated and sealed according to S151(f)10; or
- ☐ In climate zones 10, 12 and 13, with 1 ft² of free ventilation area of attic ventilation for every 150 ft² of attic floor area, and where at least 30 percent of the free ventilation area is within 2 feet vertical distance of the roof ridge; or
- ☐ Building has at least R-30 ceiling insulation; or
- ☐ Building has radiant barrier in the attic meeting of the requirements of S151(f)2; or
- ☐ Building has no ducts in the attic; or
- ☐ In climate zones 10, 11, 13 and 14, R-3 or great roof deck insulation above vented attic.

Exception to S152(b)1Hiii, Low-slope roof (pitch < 2:12)

☐ Building has not ducts in attic

Other Exceptions:

- ☐ Roofing area covered by building integrated; photovoltaic panels and solar thermal panels are exempt from the cool roof criteria.
- ☐ Roof constructions that have thermal mass over the roof membrane with at least 25lb/ft² is exempt from Cool Roof criteria.

Documentation Author's Declaration Statement

- I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the building design identified on the Certificate of Compliance.
- I certify that the energy features and performance specifications for the building design identified on the Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations.
- The building design features identified on the Certificate of Compliance are consistent with the information provided to document this building design on the other applicable compliance forms, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I certify that this Certificate of Compliance documentation is accurate and complete.

Note: If no CRRC-1 label is available, this compliance method cannot be used, use the Performance Approach to show compliance, otherwise, check the applicable box if Exempt from the Roofing Products "Cool Roof" Requirement:

CRCC Product ID Number ¹	Roof Slope		Product Weight		Product Type ²	Aged Solar Reflectance ^{3,4}	Thermal Emittance	SRI ⁵
	< 2:12	> 2:12	< 5lb/ft ²	> 5lb/ft ²				

- The CRCC Product ID number can be obtained from the Cool Roof Rating Council's Rated Product Directory at www.coolroofs.org/products/search.php
- Indicate the type of product is being used for the roof top, ie. single-ply roof, asphalt roof, metal roof, etc.
- If the Aged Reflectance is not available in the Cool Roof Rating Council's Rate Product Directory, then use the Initial Reflectance value from the same directory and use the equation $(0.2 + 0.7 (p \text{ initial} - 0.2))$ to obtain a calculated aged value. Where p is the Initial Solar Reflectance.
- Check box if the Aged Reflectance is a calculated value using the equation above.
- Calculate the SRI value by using the SRI-Worksheet at <http://www.energy.ca.gov/title24/> and enter the resulting value in the SRI column above and attach a copy of the SRI-Worksheet to the CF-1R.

To apply Liquid Field Applied Coatings, the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer, and meet the minimum performance requirements listed in S118(i)4.
Select the applicable coating:

☐ Aluminum-Pigmented Asphalt Roof Coating ☐ Cement-Based Coating ☐ Other

Name:**Signature:****Company:****Date:****Address:**

If Applicable: ☐ CEA or ☐ CEPE
(Certification #):

City:**State****Zip:****Phone:****License:**

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at 1-800-772-3300

Prescriptive Certificate of Compliance: Residential Reroof		CF-1R-ALT-ReRoof
Project Address:	Climate Zone	Permit #

ROOFING PRODUCTS (COOL ROOFS) §151(f)12 When the area of exterior roof surface to be replaced exceeds 50% of the existing roof area, or 1,000 ft², whichever is less, the new roofing area must meet the roofing product "Cool Roof" requirements of §152(b)1Hi, 152(b)1Hii, or 152(b)1Hiii. Check applicable alternative or exception below if the roof alteration is exempt from the roofing product "Cool Roof" requirements: <ul style="list-style-type: none"> <input type="checkbox"/> Cool roofs <u>not</u> required in Climate Zones 1-12, 14, and 16 with a low sloped roof pitch (less or 2:12 pitch). <input type="checkbox"/> Cool roofs <u>not</u> required in Climate Zones 1-9, and 16 with a steep-sloped roofs (greater pitch than 2:12) and product weight less than 5lb/ft². Alternatives to §152(b)1Hi and §152(b)Hii, Steep-slope roof (pitch > 2:12) <ul style="list-style-type: none"> <input type="checkbox"/> Insulation with a thermal resistance of at least 0.85 hr-ft²·°F/Btu or at least a 3/4 inch air-space is added to the roof deck over an attic; or <input type="checkbox"/> Existing ducts in the attic are insulated and sealed according to §151(f)10; or <input type="checkbox"/> In climate zones 10, 12 and 13, with 1 ft² of free ventilation area of attic ventilation for every 150 ft² of attic floor area, and where at least 30 percent of the free ventilation area is within 2 feet vertical distance of the roof ridge; or <input type="checkbox"/> Building has at least R-30 ceiling insulation; or <input type="checkbox"/> Building has radiant barrier in the attic meeting the requirements of §151(f)2; or <input type="checkbox"/> Building has no ducts in the attic; or <input type="checkbox"/> In climate zones 10, 11, 13 and 14, R-3 or greater roof deck insulation above vented attic. Exception to §152(b)1Hiii, Low-slope roof (pitch ≤ 2:12) <ul style="list-style-type: none"> <input type="checkbox"/> Building has no ducts in the attic. Other Exceptions <ul style="list-style-type: none"> <input type="checkbox"/> Roofing area is covered by building integrated; photovoltaic panels and solar thermal panels are exempt from the Cool Roof criteria. <input type="checkbox"/> Roof constructions that have thermal mass over the roof membrane with at least 25 lb/ft² are exempt from the Cool Roof criteria.
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NOTE: If any one of the alternatives or exception is checked the Aged Solar Reflectance and Thermal Emittance requirements for roofing products in §118(i) are not applicable. Do not fill table below.

CRRC Product ID Number ¹	Roof Slope ≤ 2:12 > 2:12	Product Weight < 5lb/ft ² ≥ 5lb/ft ²	Product Type ²	Aged Solar Reflectance ^{3,4}	Thermal Emittance	SRI ⁵
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> ⁴		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> ⁴		

Note: If no CRRC-1 label is available, this compliance method cannot be used, use the Performance Approach to show compliance,

1. The CRRC Product ID Number can be obtained from the Cool Roof Rating Council's Rated Product Directory at www.coolroofs.org/products/search.php

2. Indicate the type of product is being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc.

3. If the Aged Reflectance is not available in the Cool Roof Rating Council's Rated Product Directory then use the Initial Reflectance value from the same directory and use the equation $(0.2 + 0.7(p_{initial} - 0.2))$ to obtain a calculated aged value. Where p is the Initial Solar Reflectance.

4. Check box if the Aged Reflectance is a calculated value using the equation above.

5. Calculate the SRI value by using the SRI- Worksheet at <http://www.energy.ca.gov/title24/> and enter the resulting value in the SRI Column above and attach acopy of the SRI- Worksheet to the CF-1R.

To apply **Liquid Field Applied Coatings**, the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §118(i)4. Select the applicable coating:

<input type="checkbox"/> Aluminum-Pigmented Asphalt Roof Coating	<input type="checkbox"/> Cement-Based Roof Coating	<input type="checkbox"/> Other _____
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NOTE: When a Cool Roof is required, the installing contractor shall complete and submit the **CF-6R-ENV-01** for final inspection.

Declaration Statement	
<ul style="list-style-type: none"> I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is accurate and complete. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations. 	
Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip:	Phone:

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.